CEREAL RUST BULLETIN

Report No. 1

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Issued by:

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For the latest cereal rust news from the field, subscribe to the cereal-rust-survey mail list. To subscribe, send an email message with the word *subscribe* in the message body (not subject line) to:
cereal-rust-survey-request@coafes.umn.edu

Reports from this mail list as well as all Cereal Rust Bulletins are maintained on the CDL website (http://www.cdl.umn.edu).

- Wheat stripe rust is severe in fields and plots in southern Texas.
- Wheat leaf rust is light throughout the southern U.S.
- Oat stem rust was found in southern Texas plots.
- Crown rust is severe on susceptible oat in southern Texas.

The cool weather during late winter has slowed cereal growth throughout much of the southern U.S. small grain growing area although moisture has been adequate for good growth. In southern and central Texas wheat is in good condition but 7-10 days behind normal crop maturity. In Kansas and Oklahoma most of the wheat crop is in good condition and there has been minimal winter injury.

Wheat stem rust. As of March 26, no wheat stem rust has been reported in the U.S.

Wheat leaf rust. By the third week in March, light amounts of wheat leaf rust were found on some of the wheat cultivars and lines in the Beeville nursery in southern Texas. The rust infections were noted on the lower leaves of the wheat plants which indicates the rust may have overwintered in the nursery. In southern Texas wheat fields, only traces of leaf rust were observed. Throughout Texas, wheat was planted late and conditions have been cooler than normal which could account for the slow development of leaf rust.

No leaf rust has been reported in southern Louisiana by mid-March.

Leaf rust on durum. Leaf rust resistance in some commercial durum cultivars in northwestern Mexico broke down this year. In some fields farmers had to apply or are applying fungicides.

Wheat stripe rust. On March 19, wheat stripe rust was severe in the Beeville, Texas nursery and in southern Texas fields. Commercial wheat in this area was at the heading stage. This is the most stripe rust observed in this nursery in the past 23 years. Prevalences were rated at 15-20% with 20% severities within the foci. Primary infections were noted on the upper leaves and were 3-4 weeks old. This indicates the initial stripe rust spore shower may have come from infected areas further south, i.e., Mexico, in early to mid February. During the third week in March in a soft red winter wheat field near College Station in central Texas light stripe rust was observed on the middle and lower leaves of wheat plants. On March 23, farmers were spraying wheat fields for stripe rust in the San Angelo area in west central Texas. Throughout Texas this year the winter crops were planted later than usual and moisture conditions have been above normal. The cool temperatures in late winter have been especially favorable for stripe rust development throughout southern Texas. Last year no stripe rust was observed in southern Texas but was found farther north and east. South Texas may provide inoculum for susceptible wheat in the northern wheat growing area if the weather continues to favor stripe rust development. There have been no reports of stripe rust problems in Mexico.

During the second week in March, wheat stripe rust was found in fields in Evangeline parish of southern Louisiana. By this date last year stripe rust already was found in northeastern Louisiana.

Please send wheat and barley stripe rust collections (10 or more rusted green leaves) after collection as soon as possible (using an overnight courier service if possible) to:

Dr. Xianming Chen
USDA-ARS
361 Johnson Hall
P.O. Box 646430
Washington State University, Pullman
WA 99164-6430
email: xianming@mail.wsu.edu

Note: Stripe rust is vulnerable to heat and does not survive long at warm temperatures;therefore, if shipment of collections for race identification is delayed, their viability will be poor.

Oat stem rust. During the third week in March, oat stem rust severities ranged from traces to 10% on the leaves of cultivars Chapman, Harrison and two experimental lines in the nursery at Beeville in southern Texas. On March 22 a stem rust collection was made from wild oat(*Avena fatua*) in south Texas.

Oat crown rust. In late March, in Beeville, Texas oat plots, crown rust was moderate to severe in susceptible cultivars. In the cultivar Brooks, l00% severities were observed and because of the rust the cultivar probably will never form a head. In an oat field in south Texas, plants with 80% severity were observed. In the oat plots in the Uvalde, Texas crown rust was light, and in a field in the immediate area a few pustules of crown rust were found. With continued good moisture conditions and mild temperatures crown rust should continue to increase and provide rust inoculum for susceptible oat growing farther north.

As of March 26, no crown rust has been found in southern Louisiana. Usually by this date oat crown rust is moderate to severe in susceptible oat plots in southern Louisiana.
Barley stem rust. As of March 26, no barley stem rust has been reported in the U.S.

Barley leaf rust. During the third week in March, light amounts of leaf rust were observed in barley plots at Beeville and Uvalde experiment stations in southern Texas.

Barley stripe rust. During the third week in March, light amounts of barley stripe rust were found on two Oklahoma experimental lines at the Uvalde, Texas nursery.

By mid-March, stripe rust was starting to increase in barley plots in the Davis , California nursery but spread from the foci is slow.

Rye rusts. There have been no reports of rye rust in the U.S. as of March 26.

Special Notes:
Distribution of Cereal Rust Bulletins

If you currently receive the Cereal Rust Bulletin by U.S. mail, but would prefer to receive it by email or receive email notification when it is posted on our website, please send a message to Mark Hughes (markh@cdl.umn.edu).

Current cereal rust situation

Cereal Rust Bulletins are distributed every two weeks on average, for the latest cereal rust news, subscribe to the cereal rust survey mail list. Instructions can be found at: http://www.cdl.umn.edu/mail_lists/CRBmail.html. Or, if you prefer, simply send a message to Mark Hughes and he will add you to the mail list. Messages from the mail list are also maintained on the CDL website (http://www.cdl.umn.edu/CRB/updates.html).

If you have information on the cereal rust situation (or other small grain diseases) that you would like to share, please email your info to:
Mark Hughes (markh@cdl.umn.edu) and David Long (davidl@cdl.umn.edu)
Or
cereal-rust-survey@coafes.umn.edu
Or, if you prefer,
call Dave (612-625-1284)

We would like to include your name and email address so others could contact you. If, however, you prefer not to have your name or email address appear with the information, we will omit them. Of course, we will continue to incorporate these reports into the Cereal Rust Bulletin.
Information of most importance
We welcome any information you can provide, but are particularly interested in the following:

- Rust (leaf rust, stem rust, stripe rust)
- Host (wheat, oat, etc.)
- Cultivar or line name if known
- Severity and prevalence
- Growth Stage -when rust likely arrived, when infection first noted and current stage
- Where rust is found on the plants, e.g., lower leaves, flag leaf, etc.

Rust collections

Reports on distribution of races of cereal rust fungi are an important part of our surveys as reported in the Cereal Rust Bulletin. We regularly collect and test isolates of stem rust (wheat, oat, and barley), wheat leaf rust, and oat crown rust. We appreciate receiving collections of these rusts from cooperators around the U.S. If you would like to contribute, please contact Dave Long or Mark Hughes, and they will send you a packet of collection envelopes and forms.

Retirement of Kurt J. Leonard, Research Leader, Cereal Disease Laboratory

Kurt will retire April 1, 2001 after serving 13 years as the Research Leader for the Cereal Disease Laboratory. and over 30 years of service in the Agricultural Research Service. Kurt plans to continue working with us at the Cereal Disease Laboratory after his retirement.